Guidelines for Prenatal Care Providers and Labor and Delivery Units

BACKGROUND

Up to 90% of infants born to hepatitis B surface antigen (HBsAg) positive mothers can become chronically infected with hepatitis B, the major cause of liver cancer worldwide, if they do not receive postexposure prophylaxis at birth. Timely postexposure prophylaxis of infants born to HBsAg positive women is very effective in preventing perinatal hepatitis B transmission. When a mother is HBsAg positive, her infant must receive two injections as soon as possible and within 12 hours of birth: hepatitis B immune globulin (HBIG) and hepatitis B vaccine. The Advisory Committee on Immunization Practices (ACIP) recommends the following:

TEST

California Health and Safety Code (CHSC), Section 125085 mandates that providers test pregnant women for HBsAg. Providers should order the HBsAg test at an early prenatal visit during every pregnancy.

AT THE TIME OF HOSPITAL ADMISSION

- Review the HBsAg status of all pregnant women admitted for labor and delivery.
- Accept only original laboratory reports as documentation of hepatitis B status. Verify the test date and that the current test was performed during this pregnancy. Do not rely on a transcribed test result.
- Perform HBsAg testing as soon as possible on women without a documented HBsAg test result or if she has clinical hepatitis.
- Retest women who are known to have engaged in high-risk behaviors for acquiring hepatitis B infection during pregnancy (e.g., recent intravenous drug use, a HBsAgpositive sex partner, more than one sex partner in the past 6 months, or treatment for a sexually transmitted disease).
- Perform HBeAg testing and determine quantitative HBV DNA level to assess infectivity; and monitor ALT (SGPT) levels during pregnancy to detect a flare up of hepatitis that will require evaluation for oral antiviral treatment.

REPORT

CHSC 120250 and Title 17, California Code of Regulations mandate that providers report positive HBsAg lab reports to public health. Download report forms at www.publichealth.lacounty.gov/acd/reports/CMR-H-794.pdf or call (213) 351-7400.

TREAT

VACCINE RECOMMENDATIONS FOR PREGNANT WOMEN

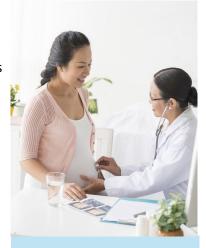
Vaccinate women who are at risk for hepatitis B infection during prenatal or postnatal visits.

VACCINE RECOMMENDATIONS FOR INFANTS Infants Born to HBsAg-positive Mothers

- Administer single-antigen hepatitis B vaccine and HBIG within 12 hours of birth.
- Mothers may breastfeed without delay. Administration of HBIG and hepatitis B vaccine series should eliminate any theoretical risk of transmission through breastfeeding.

Infants Born to Mothers with Unknown HBsAg Status

- Administer single-antigen hepatitis B vaccine within 12 hours of birth (term and preterm infants).
- Preterm infants weighing less than 2 kgs (4.4 pounds) should receive HBIG and hepatitis B vaccine within 12 hours of birth.



Complications

- Flu-like symptoms
- Yellow skin and eyes
- Dark urine
- Grey colored stools
- Liver scarring
- Liver failure
- Liver cancer
- Death

Resources

- Los Angeles County
 Department of Public
 Health, Immunization
 Program Perinatal Hepatitis
 B Prevention Unit
 www.publichealth.lacounty
 _gov/ip/perinatalhepB/
 index.htm
- Centers for Disease Control and Prevention www.cdc.gov/hepatitis/ HBV/PerinatalXmtn.htm
- California Department of Public Health www.cdph.ca.gov/ HealthInfo/discond/Pages/ PerinatalHepatitisBPrevention.aspx



Perinatal Hepatitis B: Guidelines for Prenatal Care Providers and Labor and Delivery Units

Infants Born to Mothers with Negative HBsAg Status

- Administer a dose of single-antigen hepatitis B vaccine to full-term infants weighing 2 kgs or more before hospital discharge.
- At one month of age or hospital discharge, administer single-antigen hepatitis B vaccine to preterm infants weighing less than 2 kgs.

EDUCATION FOR HBSAg POSITIVE PREGNANT WOMEN

- Inform HBsAg positive mothers that their test results indicate that they may have chronic hepatitis B and that they should consult with a physician experienced in the management of chronic liver disease.
- Advise HBsAg positive women that breastfeeding is safe if their infant receives HBIG and hepatitis B vaccine at birth.
- Discuss the importance of the infant completing the full hepatitis B vaccine series on schedule.
- Inform the mother that the infant will need a HBsAg test and an antibody to HBsAg (anti-HBs) test after completion of the vaccine series at 9-12² months of age to ensure the effectiveness of the vaccine.
- Describe the modes of hepatitis B virus transmission.
- Discuss the importance of vaccination of their susceptible household, sexual, and needle-sharing contacts.
- Refer the mother for a medical evaluation for chronic hepatitis B, including an assessment of whether she is eligible for antiviral treatment.

FOLLOW-UP FOR HBSAG POSITIVE PREGNANT WOMEN

- There is no evidence that a C-section reduces vertical transmission.
- Positivity for hepatitis B "e" antigen (HBeAg) and a high viral load (HBV DNA) are associated with an increased risk of perinatal transmission of hepatitis B virus even when postexposure prophylaxis is provided to the infant at birth.
- Risk of transmission to the fetus due to amniocentesis is low, but may be higher in the setting of maternal HBeAg positivity and/or high viral load. Prior to amniocentesis, check HBeAg and HBV DNA viral load to help assess the risks and benefits of the procedure. Always avoid transplacental amniocentesis.
- If the HBsAg+ pregnant woman is on oral antiviral therapy for chronic hepatitis B infection, she should discuss the risks and benefits of continuing treatment during pregnancy with the health care provider who prescribed the treatment.
- If the HBsAg+ pregnant woman does not have a health care provider to provide long-term care for chronic hepatitis B, refer her for care and long-term monitoring for liver cancer.
- Routine administration of oral antiviral drug treatment for chronic hepatitis B without careful evaluation is not recommended for HBsAg+ pregnant women because the efficacy and safety on the use of these drug during pregnancy has not been proven.

AT HOSPITAL DISCHARGE

- Give the infant's immunization record to the mother and remind her to take it to the infant's first health care provider visit. Use of regional immunization registries are encouraged to record infant hepatitis B immunizations.
- Notify the Los Angeles County Department of Public Health Perinatal Hepatitis B Prevention Unit (PHBPU) of all births to women with positive or unknown HBsAg status within 24 hours of birth. Report forms are available at www.ph.lacounty.gov/ip/perinatalhepB/HOSPITAL_REPORT.pdf or you can call (213) 351-7400.
- Please refer all HBsAg+ female patients to the PHBPU after delivery. Instruct your patients to call
 (213) 351-7400 within one week of discharge. Please document this referral on your Discharge Summary.

Adapted from the California Department of Public Health.



¹A Comprehensive Immunization Strategy to Eliminate Transmission of Hepatitis B Virus Infection in the United States, Recommendations of the Advisory Committee on Immunization Practices (ACIP) Part 1: Immunization of Infants, Children, and Adolescents, MMWR, December 23, 2005 / 54(RR16);1-23. Please see: www.cdc.gov/mmwr/preview/mmwrhtml/rr5416a1.htm?scid=rr5416a1.e.

² Schillie S, Murphy TV, Fenlon N, Ko S, Ward JW. Update: Shortened Interval for Postvaccination Serologic Testing of Infants Born to Hepatitis B- Infected Mothers. *MMWR* 2015; 64(39);1118-20. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/